

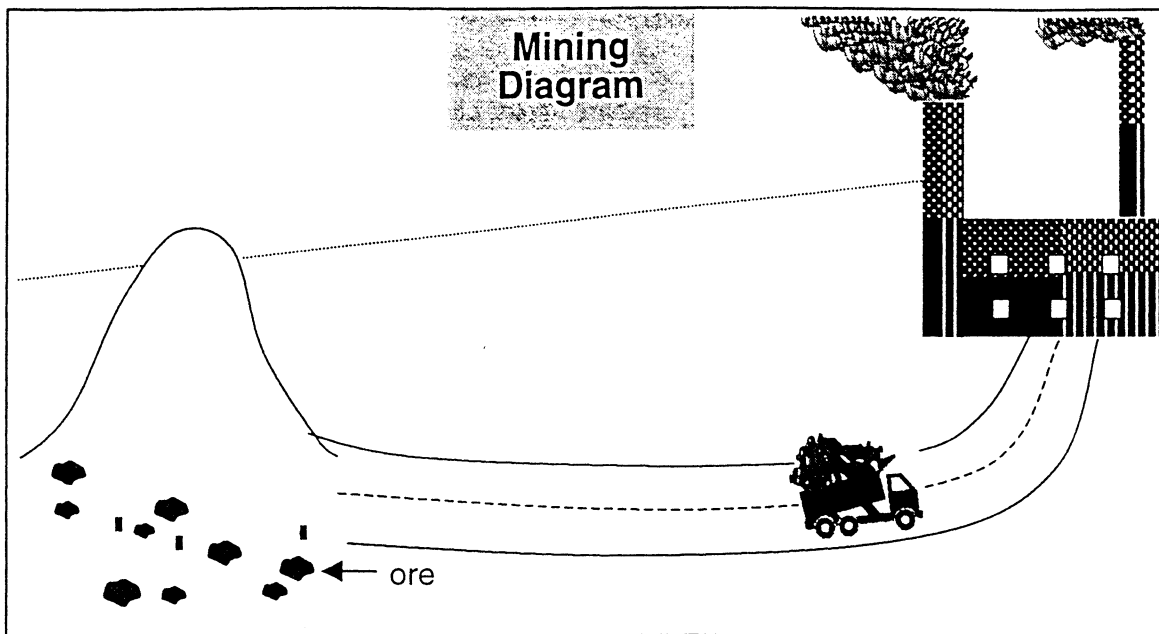


Grade 8 Science

***Released Items
Winter 2000***

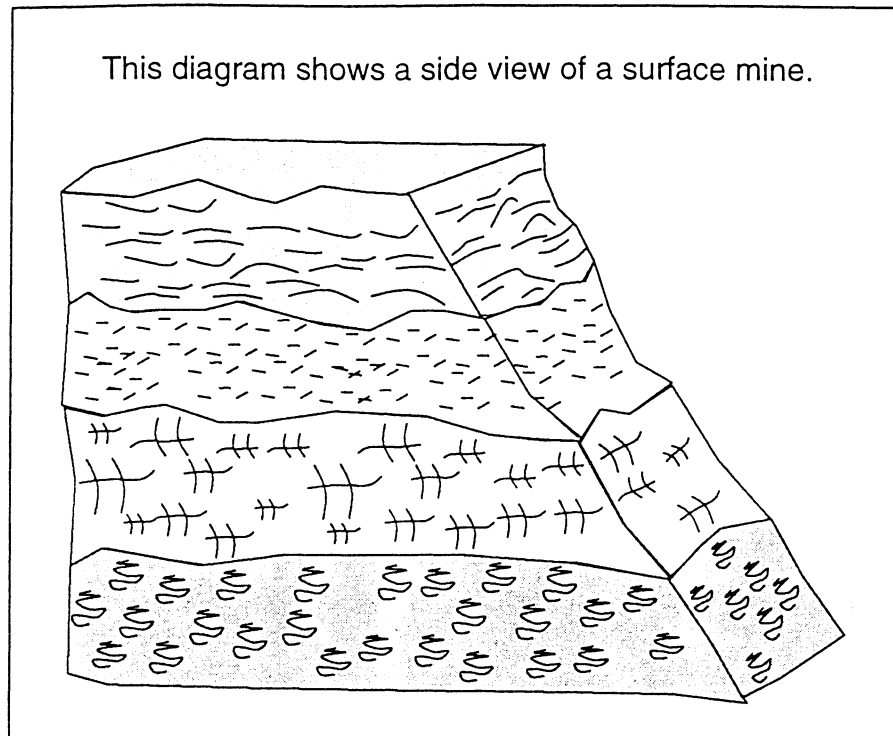
Grade 8 Science Released Items

- 3 Eye color is a trait that two parents could pass on to their children even though the trait might not be expressed in the parents. Such a trait is considered to be
- A acquired.
 - B inherited.
 - C neutral.
 - D positive.
- 6 Digestion is a
- A reversible change of food.
 - B physical change of food only.
 - C chemical change of food only.
 - D chemical and physical change of food.
- 17 Steven filled an ice tray nearly full with water. When he took the tray out of the freezer, the ice extended above the top of the tray. He wondered if there had been a change in the amount of substance in the tray. Which is the **BEST** measure to find any change in the amount of substance in the ice tray?
- A mass
 - B volume
 - C area
- 22 Kari's class was investigating how a powdered drink mix dissolves in water of different temperatures. They needed to determine how much mix would dissolve in a given sample of water. Which would be the **BEST** procedure?
- A Add heaping teaspoons of mix until no more dissolves. Count the number of heaping teaspoons used.
 - B Measure the mass of mix before and after shaking small amounts into the water until no more will dissolve. Calculate the difference.
 - C Shake a little bit in at a time until no more will dissolve. Count the number of shakes.
 - D Add three packages of mix to the water. See how much of it dissolves.
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This is a diagram showing three of the stages involved in mining. First, valuable ores are removed from the mine. Next, trucks transport the ore to a factory. Finally, the ore is processed in the factory so it can be used by humans for a variety of needs.

- 55 Which one of the following is a chemical change occurring in the above diagram?
- A The factory processes the ore and produces smoke.
 - B Large rocks are broken down into small piles of ore.
 - C A road is worn out between the mine and the factory.
 - D Dust particles rise from the back of the truck as it rides down the road.
- 56 An environmental organization wants to investigate the effects of this mine on the local wildlife. Which one of the following tests will be **MOST** useful in its investigation?
- A Measure the heights of the largest trees in the area.
 - B Calculate the amount of pollution produced by the factory in one day.
 - C Determine what the population of local animals was before the mine was created.
 - D Compare the change in population of local animals before and after the mine was created.
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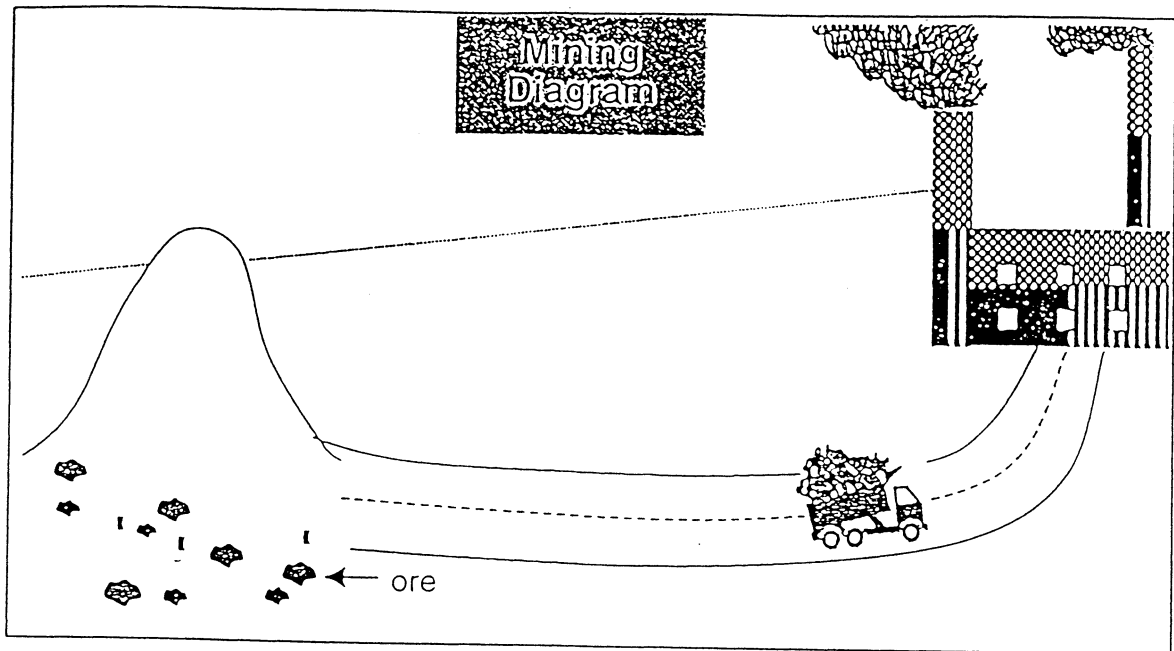


- 57 How might the rocks in the above diagram be useful in studying the evolution of life in the surrounding area?
- A They may contain fossils which can be compared to the age of the rocks.
 - B There may be bones of modern-day animals mixed in with the rock piles.
 - C Building the mine may have caused local animals to move to a new environment.
 - D When the mine is abandoned, new animals may move in to the area and can be studied.
- 58 Surface mining can have negative effects on the environment around the mine. Which one of the following is **MOST LIKELY** to be a negative environmental effect of surface mining?
- A increase in gasoline prices
 - B increase in local economy
 - C destruction of animal habitat
 - D destruction of mining equipment
-

Grade 8 Science Released Items

- 59 Pollution of air and water can also be caused in natural ways. What is one natural source of pollution?
- A factories
 - B recycling
 - C automobiles
 - D volcanoes
- 60 Explain two ways that air pollution is caused by changes in matter. For each way, explain what substance is being changed and what it is being changed into.

**ANSWER THIS ITEM IN YOUR ANSWER BOOKLET.
NOTHING WRITTEN IN THE SPACE BELOW WILL BE SCORED.**



This is a diagram showing three of the stages involved in mining. First, valuable ores are removed from the mine. Next, trucks transport the ore to a factory. Finally, the ore is processed in the factory so it can be used by humans for a variety of needs.

- 60 Explain two ways that air pollution is caused by changes in matter. For each way, explain what substance is being changed and what it is being changed into.

Sample Responses

Gasoline is burned and turned into exhaust.
Coal ore is burned and gives off smoke.
Trees are burned and become ash.

Scoring Guide

2 Points—Two valid changes in state of matter which produce air pollution.

1 Point—One valid change in state of matter which produces air pollution.

OR

A response which gives two examples of changes in matter, but doesn't address
The end products.

OR

A response which gives two end products, but doesn't name the substances
being changed.

0 Points—Incorrect information

60 One change in matter that may cause pollution is the burning of garbage. Burning it releases fumes that are harmful to the earth's atmosphere. By burning solid substances, you'll be changing it physically and chemically into smoke and fumes that may be harmful. Creating pollution, air pollution.

Another way of how changes in matter pollutes the air is an example of a factory. It burns coal and lots of other things. By doing so, it releases even more gases that are harmful to earth's atmosphere.

Guide 2

Score Point: 2

This response gives two correct substances with products (burning garbage releases fumes, burning coal releases gases).

60 Gas being burned rips
holes in ozone layer
Coal does the same as
gas only coal looks
different.

Guide 4

Score Point: 1

This response contains two substances (gas and coal). No product is named.

The air pollution is caused by the dirt.

Guide 8

Score Point: 0

This response contains one incorrect substance (dirt).

Multiple Choice Item Answer Key

<u>Item</u>	<u>Answer</u>
3	B
6	D
17	A
22	B
55	A
56	D
57	A
58	C
59	D